

# NEWS

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## Center for Accessible Housing

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The Center for Accessible Housing *NEWS* is designed for readers involved in planning, design, production, construction, renovation, financing and marketing of housing to meet the needs of people with disabilities. Please send correspondence to Colleen Tarry at CAH. *NEWS* is also available in large print, Spanish and audio cassette for your convenience. Readers are free to reproduce sections of this *NEWS* provided no contextual changes are made and appropriate credit is given to the Center.

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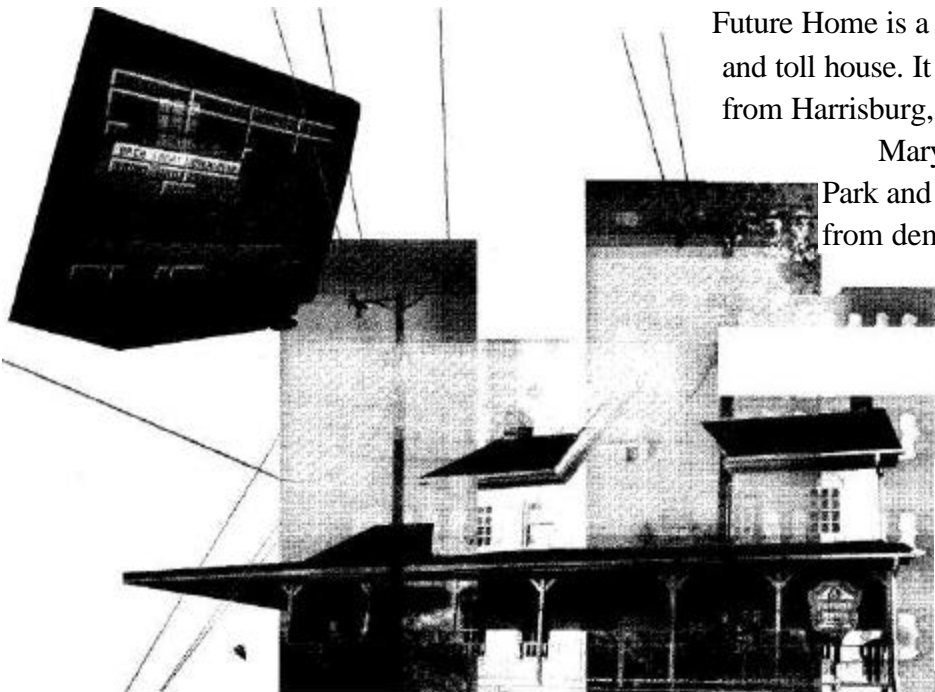
## FUTURE HOME IS A SMART IDEA

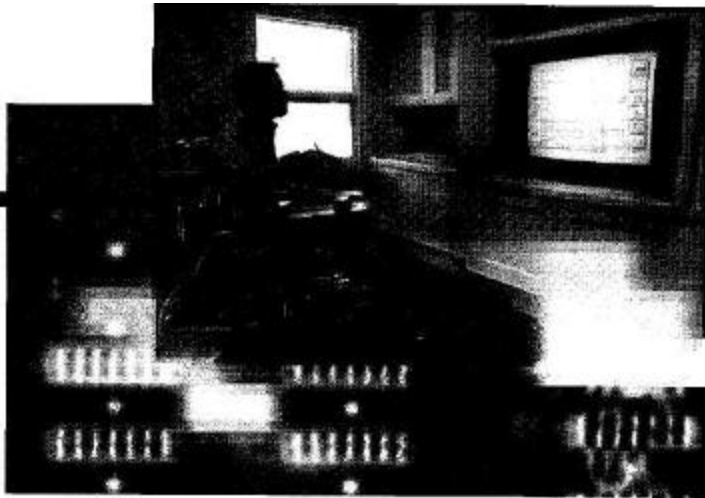
*Have you ever wanted to turn on all of the exterior flood lights after hearing a strange sound in the back yard? Did you ever wish you could turn up the heat in your house before you arrive home? Have you ever wanted to let the dog out when you were running late? Well, one such place exists that displays various technological advances for everyone. This place is called Future Home®.*

Future Home is a renovated and restored 135-year-old tavern and toll house. It is situated on what was once the main route from Harrisburg, Pennsylvania to Baltimore,

Maryland. The 26-acre site in Gunpowder State Park and its cluster of farm buildings was rescued from demolition in 1986 by the resident curator, Dave Ward, and has since been listed by the Maryland Inventory of Historic Sites. This home is now a national demonstration project to showcase ideas for independent living for people with disabilities.

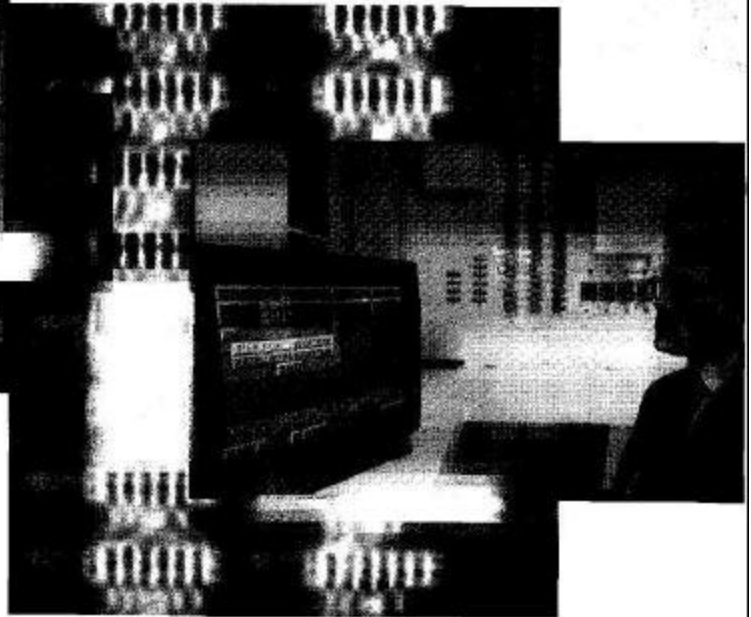
The home has been converted into a national demonstration site for home automation technology and barrier free design by Volunteers for Medical





Engineering (VME) to showcase ideas for independent living for people with disabilities. VME is a group of highly skilled volunteers committed to the empowerment of people with disabilities. Work began on Future Home® after Mr. Ward, himself a person with a disability, offered the historic site to VME to display their latest innovations in technology for use by people with disabilities.

Future Home® hopes to take accessible housing into the next stage. Implementation of the Americans with Disabilities Act has increased the awareness of both consumers and designers about such things as wider doorways, ramps and grab bars. However, these are only partial solutions to various household dilemmas. Future Home's® mission is to demonstrate how available technologies, primarily in home automation and communication electronics, can give consumers with disabilities and older adults control over their environment.

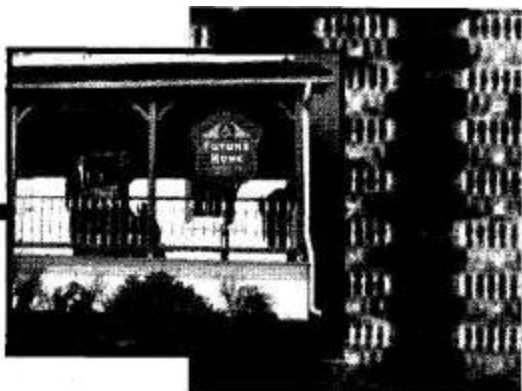


With three miles of special wiring, three computer systems and technology of every description, Future Home® illustrates how technology can aid everyone. Some of the items that can be seen at Future Home® include:

**Television based operating system:** The command screen for the main computer may be viewed and controlled by any normal television without interrupting normal programs. This allows a person with a disability to control/monitor what is happening without sitting near a computer.

**Voice control:** Many of the systems and the computer in Future Home® are able to respond to recognized voice commands from anywhere in the home.

**Intelligent lighting:** Virtually all lighting in the home can be controlled remotely from a bed, chair or wheelchair. "Intelligent lighting" will turn on automatically when people enter a room or leave the premises. Bright lighting is present throughout the home to aid people with visual disabilities and older adults.



**Hands-free phones:** Future Home® incorporates various styles of hands free telephone use. The ability to make and receive calls via voice or other means from anywhere in the home may provide a person with a severe disability with enough security to live independently without full-time assistance.

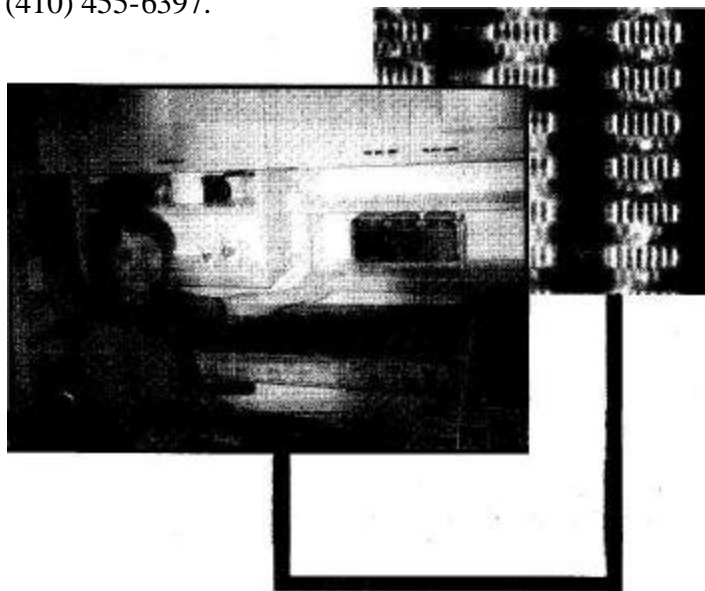
**Universal remote control:** This Future Home® innovation integrates all of the remote controls that a person with a disability might use into a single portable unit which has a built-in display screen. The Universal remote controller can change menu screens and activate the command of any remotely controlled equipment.

**Adjustable cabinetry:** Tabletops and kitchen cabinets are able to be electrically lowered from their customary height to a height that is accessible to someone in a seated or standing position.

**Personal business:** Future Home® will demonstrate how people with limited mobility can shop, bank, and work at home and access literature from their home through computer technology.

**Electronically controlled plumbing:** Future Home® demonstrates push button electronic water temperature/flow controls to allow persons with limited mobility/strength to control water temperature and flow.

For more information on the availability of guided tours or product research, please call Jeff Jerome at (410) 455-6397.



## LETTER FROM THE EDITOR

Another busy year is coming to an end here at the Center for Accessible Housing. Many good things have happened for us, especially our renewed funding. We hope that you have met with the same success in your organization.

The Center continues to try to provide its readers with the most beneficial, up-to-date information and you are making that possible. We urge you to continue sending us information about your projects and what you are doing to help make a more universally designed world for everyone. Thank you for your contributions.



This edition of NEWS is filled with innovative and helpful ideas for everyone. Next year we will have a new name and maybe a new look, but will remain dedicated to quality information. So, keep looking for us. If you know of any one who is interested in receiving our newsletter, please pass their name onto us here at CAH.

We are wishing all of you the happiest of holidays and a most prosperous and accessible New Year!

## RAMP STUDY IN FULL TILT

The Center's ATBCB-sponsored project to study ramps is more than half over but still has a ways to go. By the time we have tested all 192 people, however, we will have a good idea of how the slope of a ramp affects its usability and what the maximum allowable slope ought to be.

The testing is going very smoothly. The response to our call for volunteers in the local Raleigh area has been tremendous, with many of the study participants referring friends of theirs to call up and volunteer their time, as well. Several people have come in pairs, either friends or married couples. We still need to find volunteers, *especially people over the age of 74*, who use mobility aids of any kind: canes, crutches, walkers, wheelchairs.

## HOUSING BUILT FOR PEOPLE WITH MULTIPLE CHEMICAL SENSITIVITIES

The first apartment complex in the country designed for low-income people with environmental-illness had its grand opening August 4, 1994. Some of you may remember our two part series on Multiple Chemical Sensitivities (MCS) in our 1993 August and December issues. We mentioned the work of Susan Molloy, M.A. and her project, Ecology House.

*Ecology House, which is located at 375 Catalina Boulevard in San Rafael, California, has 11 one-bedroom apartments that were ready for occupancy around August of this year.*

People with MCS are affected by everything from laundry detergent to makeup products to dust. They are susceptible to illness from paint, plywood and perfumes and many other building products as well.

We apologize for any misunderstanding caused by the article in our last newsletter regarding the reimbursement for travel expenses.

We can only afford to pay \$20 to cover travel in our local area. If you know of anyone in the Raleigh area who may be intested in taking part, please ask them to call the Center (515-3082) and ask for Molly Story. Testing is expected to continue through February.



Tenants are prohibited from using such items as cologne, air fresheners, commercial cleaning products, mothballs and aerosol sprays. Each one bedroom unit comes with a high powered ventilation system, concrete and tile floors, metal kitchen cabinets and no fluorescent lights.

The building cost \$1.8 million and was constructed with non-toxic materials to help protect the health of those who have multiple chemical sensitivities. A federal grant of \$1.5 million and money from the city of San Rafael and other local grants paid for the project. It is owned and managed by the nonprofit Ecology

House, Inc. which is composed of representatives from Marin Homes for Independent Living, Environmental Health Network and the Ecumenical Association for Housing.

To obtain an application for residency in Ecology House, call (415) 257-8202. Send applications to Ecology House Inc., P.O. Box 9082, San Rafael, CA 94912.





## RUSSIANS RECEIVE WHEELCHAIRS THROUGH THE WORLD COMMITTEE ON DISABILITY

The National Organization

on Disability (NOD) has recognized the need to extend their support and know-how internationally. People with disabilities in the Newly Independent States (NIS) of the former Soviet Union face particularly grueling challenges. With meager incomes, lack of opportunity for work and inadequate social and medical services, they struggle merely to survive from day to day.

For individuals with mobility impairments, frustration and anxiety are extreme. They often must wait years to obtain wheelchairs, or face the possibility of never having a wheelchair.

Through a public service ad in the Russian edition of *Business Week*, NOD's World Committee on Disability launched a pilot project to send wheelchairs to the first 100 paralyzed individuals in the NIS requesting them.

Response to the ad was overwhelming. But with the help of individuals, corporations and organizations such as the American Occupational Therapists Association, Fund for Democracy and Sister Cities International, the goal was surpassed. More than 250 new and used wheelchairs, donated by Americans, were collected, shipped and distributed throughout the NIS to children and adults desperately needing them.

What started as a modest, humanitarian effort has brought the promise of a

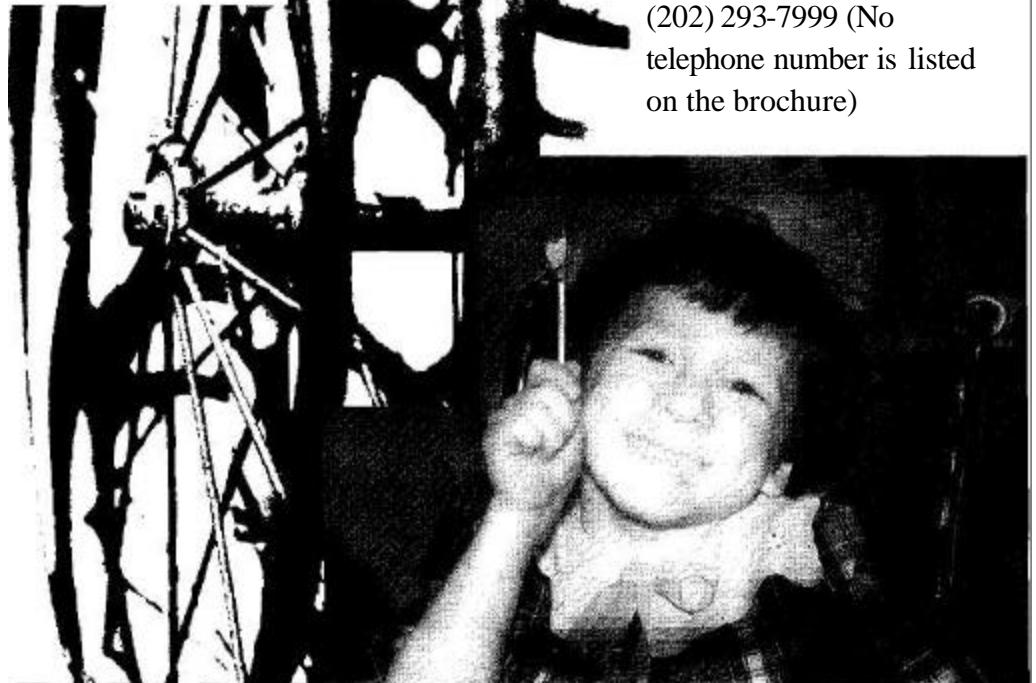
new life to hundreds of people with disabilities in the NIS. Those who once could not even move about their apartments now have the opportunity to participate and contribute to society.

The shortage of wheelchairs continues. Recognizing the immediate need for more wheelchairs, and the importance of creating the opportunity for self-sufficiency in producing them, the World Committee on Disability is expanding its Russian Wheelchair Appeal project.

The World Committee has pledged to send an additional 200 wheelchairs to Russians with mobility impairments requesting them. It also is cooperating in the development of a wheelchair production facility outside of Moscow. This facility initially will manufacture low-cost pediatric wheelchairs, using local labor and materials.

Your help will enable our Russian friends with disabilities to gain new freedom through mobility. If you are able to send a cash donation, or to identify wheelchairs for donation, please contact the Coordinator of the Russian Wheelchair Project at:

NOD/World Committee on  
Disability  
910 Sixteenth Street, NW  
Suite 600  
Washington, DC 20006 Fax  
(202) 293-7999 (No  
telephone number is listed  
on the brochure)



## SPINAL CORD INJURY DATABASE

A national database of resources on spinal cord injury has recently been revised and updated. The database contains information on over 500 videos, pamphlets, booklets and manuals, addressing 12 major subject areas relating to spinal cord injury—such as coping with SCI, bowel and bladder management, recreational activities, sexuality, employment, accessibility and home modifications.

A free printed retrieval, limited to TWO subject areas, may be requested free of charge. A compendium of all materials listed in the database, is available for purchase.

To request a free printed retrieval from the database, call or write:

Linda Herson  
Division of Education  
The Institute for Rehabilitation and Research  
1333 Moursund  
Houston, Texas 77030  
713-797-5945

To purchase the compendium, send your check for \$50.00 (includes shipping and handling) payable to Baylor College of Medicine to the address above. The database was developed under the sponsorship of the American Spinal Cord Injury Association at the Institute for Rehabilitation and Research (TIRR), with support from the Education and Training Foundation of Paralyzed Veterans of America.



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## UNIVERSAL DESIGN NEWSLETTER

*Universal Design Newsletter* is a quarterly publication that provides up-to-date and dependable information about accessible design, compliance with the Americans with Disabilities Act and the emerging field of universal design. It is published by John P.S. Salmen, AIA president of Universal Designers & Consultants, Inc., of Rockville, Maryland and includes an editorial advisory committee made up of other national experts including Ron Mace, FAIA, Elaine Ostroff, Susan Goltsman, ALSA, Jim Mueller, IDSA, Cynthia Liebrock, ASID and Jim DiLuigi, AIA. It covers such timely topics as the new recommendations for automatic door closers that could affect nearly every commercial building in America; accessibility to historic buildings, the new Title II ADAAG criteria and much more.

Each issue of *Universal Design Newsletter* contains technical information and guest articles from the nation's most knowledgeable experts in the field of accessible facilities and product design. Regular columns include: Fed Watch, Accessible Tips, New Products,

New Media, and Calendar of Events. Articles provide valuable information on topics such as detectable warnings, entry doors, public restrooms, signage requirements, recreation, housing, ATMs and employee accessibility.

Written in layman's terminology, it explains the technical details of what is happening in the field of accessibility research and compliance in Washington and around the country. After two years of publications, *Universal Design Newsletter* has just published an index of topics and proper names. It allows users to find any term or the name of an individual or organization that has been published in the first volume (1993 and 1994) of the newsletter.

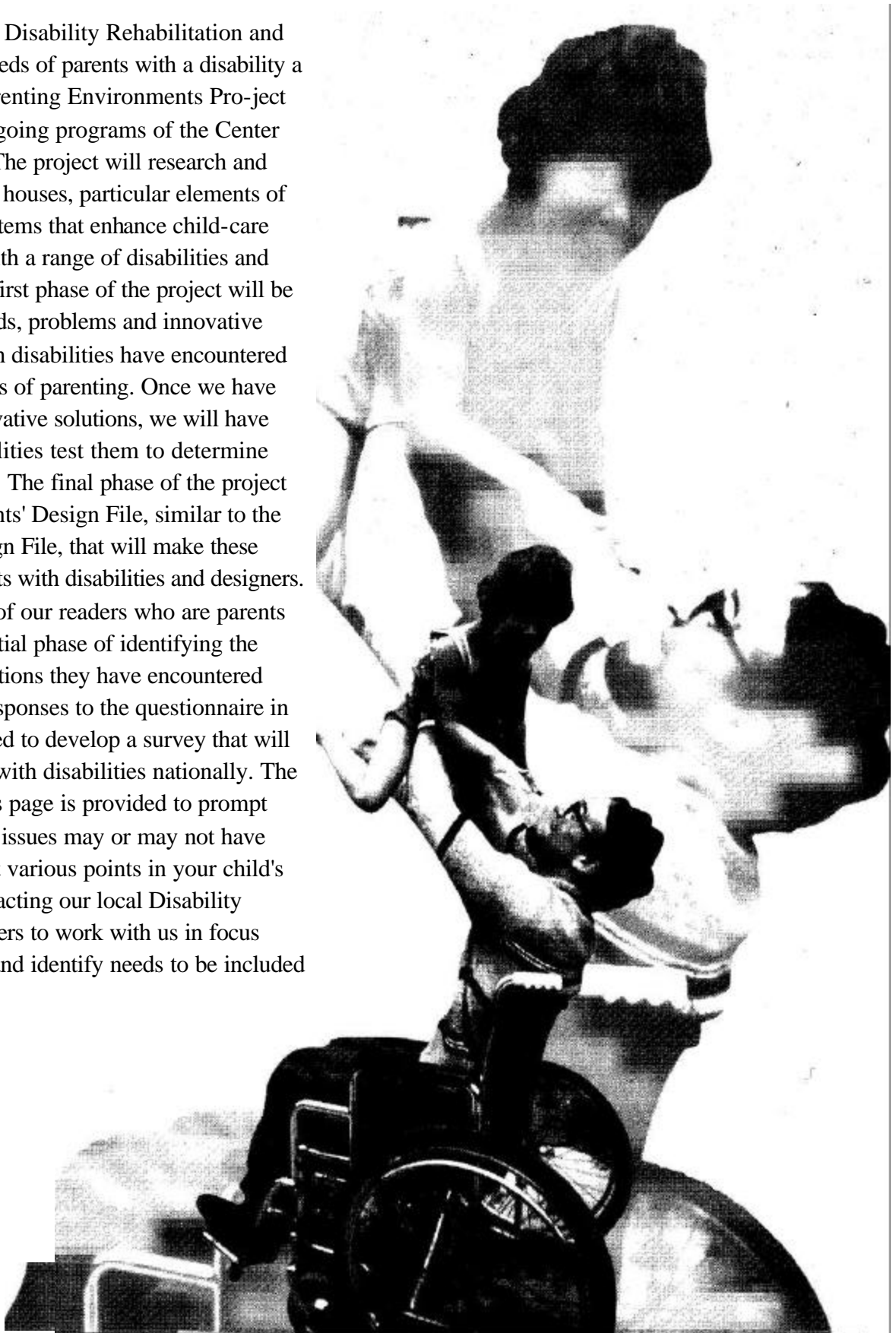
Subscriptions to the 12 page quarterly newsletter are \$75 per year. Individuals who wish to have more information or to receive a free sample should contact *Universal Design Newsletter* at (301) 770-7890 voice/TDD.

# P

## ARENTING SURVEY

The National Institute on Disability Rehabilitation and Research has made the needs of parents with a disability a national priority. The Parenting Environments Project has been added to the ongoing programs of the Center for Accessible Housing. The project will research and develop designs of whole houses, particular elements of houses, products, and systems that enhance child-care capabilities for parents with a range of disabilities and children of all ages. The first phase of the project will be to identify the design needs, problems and innovative solutions that parents with disabilities have encountered or developed in their years of parenting. Once we have identified promising innovative solutions, we will have other parents with disabilities test them to determine their universal usefulness. The final phase of the project will be to develop a Parents' Design File, similar to the Accessible Housing Design File, that will make these designs available to parents with disabilities and designers.

We need the help of our readers who are parents with disabilities in the initial phase of identifying the needs, problems and solutions they have encountered raising their children. Responses to the questionnaire in this newsletter will be used to develop a survey that will be distributed to parents with disabilities nationally. The matrix on the back of this page is provided to prompt your thinking about what issues may or may not have been of concern to you at various points in your child's life. We will also be contacting our local Disability Advisory Network members to work with us in focus groups to further clarify and identify needs to be included in the survey.





ACTIVITY	Infants	Toddlers	Pre Schoolers	6-10	11-18	College
Bathing						
Dressing						
Eating						
Play/ Leisure						
Learning/ Teaching						

Yes, I am a parent with a disability.

Name: \_\_\_\_\_

Phone #: \_\_\_\_\_

Address: \_\_\_\_\_

Zip: \_\_\_\_\_

Disability: \_\_\_\_\_

Onset of disability, *before* or *after* child(ren) *born* or *adopted*:

Household makeup (age & relationship of people in the home, including assistants):

Type of dwelling, rent or own, etc: \_\_\_\_\_

- List issues that are/were most important for you as a parent;
- Describe problems you have encountered for each issue;
- Describe solutions you have developed or thought of to alleviate these problems;
- What products or designs do you wish existed?

If you are not a parent with a disability, please pass this form along to parents not on the mailing list or call the office at 1(800) 647-6777 to ask for more copies of the "Parenting Environments question-naire". We will

take responses by phone from those who are visually impaired. Just call the above number and ask for Joy Weber. *Thanks for participating.*



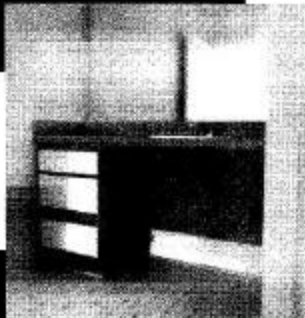
# Tech Tips

## PROBLEM:

Creating adequate space under conventional bathroom vanities is sometimes a problem for two reasons:

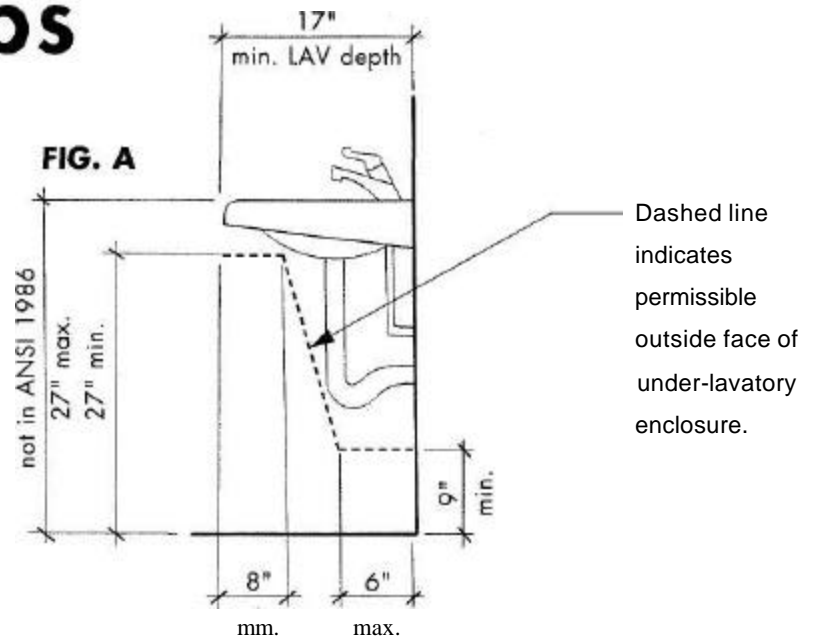
First, conventional lavatories are usually installed in stock counters, 32" high. Secondly, most off-the-shelf vitreous china lavatories are 7"-8" deep, and utilize a straight-drop trap.

To make lavatories accessible, meeting standards such as ANSI or UFAS, attention to detail at the cabinet shop and during installation is required.

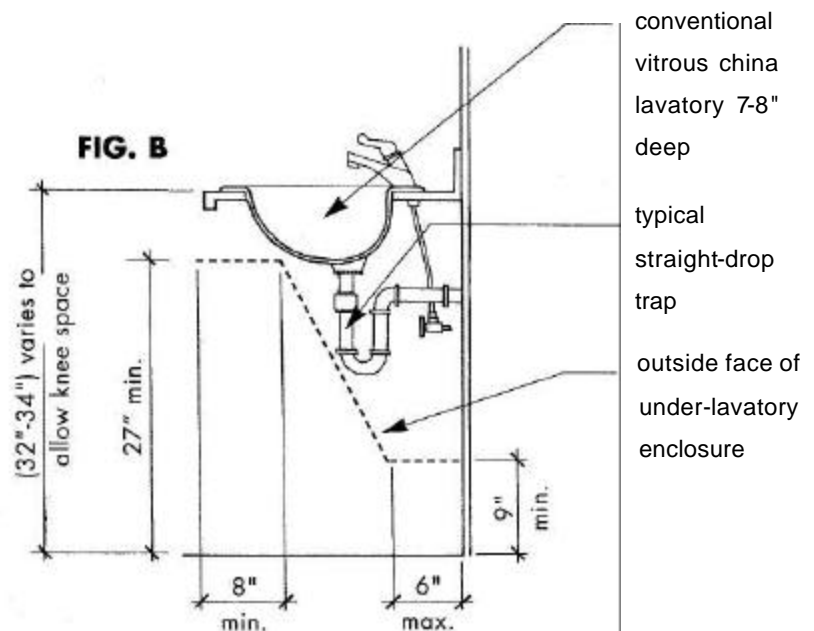


## SOLUTION:

Although many "special" wall hung sinks are on the market which are designed to meet the standards, they are often expensive, require non-standard construction, and can be institutional in appearance. Conventional lavatory sinks are preferred, and with minor modification of conventional cabinet construction, they can be installed to provide knee space which meets most standards including ANSI.



ANSI minimum dimensions for knee space are illustrated using a standard wall-hung type sink. These minimums are easily exceeded using more conventional drop-in



type lavatories as Fig. B shows.

Typical drop-in type lavatory, with knee space exceeding ANSI standards. The counter height may need to be raised 1"-2" above standard vanity height (32"), allowing the underside of the 7"-8" deep sink to clear the 27" minimum knee space requirement.

# PRODUCT EVALUATION

a guide for  
buyers and  
manufacturers



The Center has been holding a series of focus group meetings to evaluate the usability of various consumer products. These meetings involve groups of people with disabilities who are members of our Design Advisory Network. The design information learned from these sessions is being published in a series of buyer's guides that will be available to consumers to help them make informed purchasing decisions. These booklets will also be sent to all U.S. manufacturers of the product covered by each guide and all U.S. schools of design. The guides describe to current and future designers how to make products that are usable by a wider range of users.

The buyer's guide for microwave ovens is hot off the press and below is a peek at some of the key findings of our research. Separate guides are being prepared for fire extinguishers, can openers, door hardware and lavatory faucets. We will announce the availability of these guides in future issues of *NEWS*.

## Microwave Oven Universal Design Features

### Door handle

A Door release button can be easily found and operated with little force, even in low light A Door can be closed Control panel A Digital display: letters and numbers are big enough

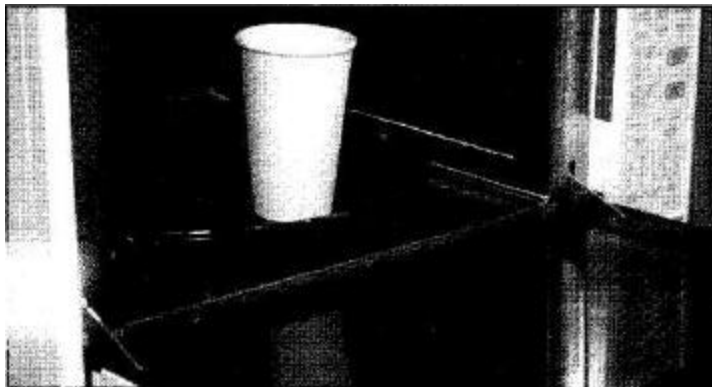
and color has sufficient contrast to be readable A Control panel buttons are easy to push, or dial is easy to turn

A Control buttons: letters and numbers are big enough, and contrast between text and background is sufficiently great; button labels are not too complicated

A Sequence of operations to use oven is simple A Has automatic cooking buttons, if desired, that automate

desired cooking functions and are simple to use End-of-cooking chime can be heard; digital display shows end message





#### Oven interior

A Window in door is easy to see through when interior light is on A Front edge of oven has no lip or the lip is not

a problem A Interior surfaces are smooth enough to be cleaned

effectively A Has a turntable or a glass tray in the bottom of the

oven, if desired, which is light enough to be lifted out for cleaning A Has a temperature probe or other sensors, if desired

#### Manual

A Text is easy to read and understand

A Illustrations clearly show operation of oven without need for written text A Large print, Braille or audio cassette versions of manuals, if desired

#### Cookware

A Is lightweight, has a usable handle and lid

To order your copy of the Microwave Ovens Buyer's Guide, please send a check, purchase order, or money order for \$4.50 per copy to The Center for Accessible Housing, NCSU, Box 8613, 27695-8613.



### NOW AVAILABLE NOW AVAILABLE NOW AVAILABLE NOW AVAILABLE NOW AVAILABLE NOW AVAILABLE NOW AVAILABLE NOW AVAILABLE NOW HOME MODIFICATIONS RESOURCE BOOK

The Center for Accessible Housing, in collaboration with the Adaptive Environments Center in Boston, conducted a two-day training workshop, "Home Modification: Skills, Approaches, and Teamwork," at the Canadian-American Occupational Therapy Conference, July 8-9, 1994 in Boston. Speakers and workshop leaders included Center staff as well as practicing occupational therapists from Canada and the United States, architects, and a remodeling contractor. The training curriculum consisted of discussions of theory and practice in home assessments, slide presentations of home modification solutions, products, and case studies, and hands-on workshops for reading blueprints, assessing case study situations, and developing accessible home modification solutions.

A resource book containing articles, samples of home assessment checklists, technical booklets, bibli-

ographies, universal design information, and accessible housing guidelines was compiled by the Center for distribution to all participants at this training workshop. The Home Modifications Resource Book is now available in limited supply from the Center for Accessible Housing for \$50.00 per copy. Although developed specifically for the occupational therapy training session, the book contains information and materials that are useful to any individual or organization involved in providing home modifications assessments or services. To order your copy of the Home Modifications Resource Book, send a check, PO or money order for \$50.00 to the Center for Accessible Housing, NCSU, Box 8613, Raleigh, North Carolina 27695-8613. Prepayment required. If you have any questions concerning the contents of the book, you may call Jan Reagan at 1(800) 647-6777.